### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

#### (19) World Intellectual Property Organization International Bureau



## 

# (43) International Publication Date 28 October 2004 (28.10.2004)

PCT

# (10) International Publication Number WO 2004/091378 A2

(51) International Patent Classification7:

A61B

(21) International Application Number: PCT/US2004/009099

(22) International Filing Date: 26 March 2004 (26.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/460,236

3 April 2003 (03.04.2003) US

(71) Applicant (for all designated States except US): UNI-VERSITY OF VIRGINIA PATENT FOUNDATION [US/US]; 1224 West Main Street, Suite 1-110, Charlottesville, VA 22903 (US).

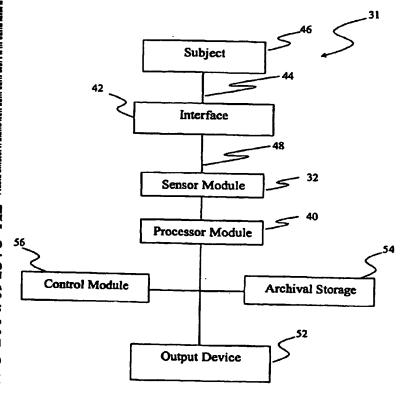
(72) Inventors; and

(75) Inventors/Applicants (for US only): FELDER, Robin, A. [US/US]; 1841 Fendall Avenue, Charlottesville, VA 22903 (US). ALWAN, Majd [SY/US]; 479 Rolling Valley Court, Charlottesville, VA 22902 (US). KELL, Steven, W. [US/US]; 641 Campbell Road, Keswick, VA 22947 (US). MACK, David, C. [US/US]; 782 Merion Greene, Charlottesville, VA 22901 (US).

- (74) Agent: DECKER, Robert, J.; University of Virginia Patent Foundation, 1224 West Main Street, Suite 1-110, Charlottesville, VA 22903 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

### (54) Title: SYSTEM AND METHOD FOR PASSIVE MONITORING OF BLOOD PRESSURE AND PULSE RATE



(57) Abstract: System and method that can monitor pulse rate and passively produce a blood pressure measurement and automatically log the data for the user. Additionally, coupling to the Internet or Information Systems expands the options for the early detection of diseases, based on sudden detected changes and trend analyses, and the successful treatment of these patients while reducing the high costs associated with invasive procedures and in-hospital care.